"1. Nitrate of silver is not a caustic or corrosive substance, but, on the contrary, possesses a peculiar conservative property, calculated to preserve, and not to destroy, the animal tissue to which it is applied.

2. When an adherent eschar forms over a recent wound, the wound, under ordinary circumstances, invariably heals.

3. The direful effects of punctures from needles, nails, hooks, thorns, bayonets, saws, &c., are totally prevented.

4. In lacerated wounds the consequent irritation and inflammation are prevented or removed.

5. In recent contused wounds the inflammation is subdued, and consequent suppuration and loss of substance prevented.

6. In phlegmonous inflammation the progress of tumefaction and inflammation is arrested, and suppuration often prevented.

7. In simple acute erysipelas the inflammation is immediately arrested, and quite subdued in four days; when affecting the face and scalp, cerebral inflammation is invariably prevented, and delirium ceases.

8. In phlegmonous erysipelas the inflammation is often arrested, and so far subdued as to prevent extensive sloughing of the cellular tissue; or if suppuration takes place, it is similar to phlegmon.

9. In ulcers the inflammation is removed, suppuration modified, and the healing process greatly facilitated. These effects are very apparent in the treatment of phagedenic ulcers.

10. In large incised wounds, where the interrupted suture is used, inflammation and suppuration are prevented, and the wound heals by the first intention.

11. In variola the early pustule is immediately arrested in its progress, and the pitting of smallpox is entirely prevented.

12. In dissection wounds the specific poison is neutralized, and rendered innocuous, so that all danger is prevented.

13. The healing process by the nitrate of silver is generally facilitated when the parts can be exposed to the air." W. S. W. R.

ART. XXV.—*Contributions to Bone and Nerve Surgery.* By J. C. NOTT, M. D., Professor of Surgery in Mobile Medical College. Philadelphia: J. B. Lippincott & Co., 1866. 12mo. pp. 96.

THIS brochure is intended, the author declares in the preface, "simply as a contribution to a department of surgery which has been strangely neglected, and in which there is a remarkable want of medical literature, viz., the *sequelæ* of gunshot and other injuries of bones." "Writers on military surgery," he says, "have well covered the ground of what might be called *primary* and *secondary* surgery; but here they stop, and we are left to grope our way in the dark in *tertiary* surgery. None of them follow up the shattered and diseased bones for months and years and give us well-defined rules by which we are enabled to treat this large class of tedious, painful, and dangerous gunshot sequelæ."

One half of Dr. Nott's essay is devoted to a succinct *résumé* of those general pathological principles and the rules of practice which are taught in systematic treatises as those by which the surgeon should be guided in dealing with traumatic affections of bone and their consequences. The other half contains his own peculiar views, exemplified by cases that have come under his own observation.

The *résumé* of what is taught in systematic treatises is an excellent one. It must be remarked, however, that systematic treatises do not contain many important observations upon osteo-myelitis and contusion of bone, by which the surgery of the osseous system has been much enriched in the past few years.

The peculiar views of the author, contained in Part II., are set forth clearly, and the cases by which they are exemplified are appropriate and instructive.

In consequence of gunshot wounds, in which the bones have been struck or broken, the surgeon often has to deal with chronic osteitis, caries, necrosis, deformed or voluminous callus, exostoses, and false joint. The presence of foreign bodies, the extreme complication of the fracture, long-continued suppuration, and chronic osteo-myelitis play the chief part in the production of these affections.

Dr. Nott has confined himself almost exclusively to the consideration of the proper treatment of cases of necrosis and of chronic osteitis. The directions given by him for dealing with these troublesome cases are sound, and may be followed with advantage.

As is well known, Dupuytren divides the splinters made by a gunshot wound of a bone into *primary*, *secondary*, and *tertiary*. It is a convenient division, and one generally followed by surgical writers. The primary are those entirely detached at the moment of injury; the secondary, those incompletely detached, still adhering to muscle, tendon, or aponeurosis; the tertiary are those still adherent to the bone, to be detached, if left, by necrosis. (*Clinique Chirurgicale*, tome 2ième, pp. 457 and 586.) All experienced surgeons are agreed that primary splinters should be at once removed, but they differ as to the proper course to pursue in regard to the others. For instance, Dupuytren himself teaches that they should be left; so also do Percy and Larrey; while Guthrie and Baudens advise their removal. Dr. Nott says that in the latter part of the war he adopted a very different practice from that he followed at the beginning, and became much less scrupulous in leaving fragments *in situ*, and was astonished at the manner in which nature would solder them together. The conclusion we reached, from our own experience, was just the contrary.

In the sixteenth volume of the *Memoirs of the Académie de Médecine* (1852) is a memoir by Hutin, Chief Surgeon of the Hôtel des Invalides, which is entitled: "On the Necessity of Extracting Foreign Bodies and Splinters in the Treatment of Gunshot Wounds." It is an admirable memoir, and shows, we think, very clearly, that the elimination of secondary splinters is always painful, often dangerous, and sometimes fatal. While, when immediately extracted, recovery is incomparably more rapid. It may be remarked on this occasion that Dr. Nott believes the climate of the Southern States to be peculiarly favourable to wounds. He feels assured that no experience of the old world can compare, in success (in gunshot fractures) with that of the surgeons of the Southern States, not from any peculiar skill on their part, but from the superiority of the climate. (p. 80.)

Two interesting cases of affection of the nerves—one of neuralgia of the stump after amputation, the other of a neuromatous encysted tumour of immense size—are recorded in an addendum. W. F. A.

ART. XXVI.—*On Wakefulness; with an Introductory Chapter on the Physiology of Sleep.* By WILLIAM A. HAMMOND, M. D., Fellow of the College of Physicians of Philadelphia; Member of the Philadelphia Pathological Society, etc. etc. Philadelphia: J. B. Lippincott & Co., 1866. 12mo. pp. 93.

THE basis of this little volume may be found in an essay "On Sleep and Insomnia," published by the author in the May and June issues of the *New York Medical Journal* of 1865.

Dr. Hammond teaches that "the *immediate* cause of sleep is a diminution of the quantity of blood circulating in the vessels of the brain, and that the *exciting* cause is the necessity which exists that the loss of substance which the brain has undergone, during its state of greatest activity, should be restored." This doctrine, he sustains, by reference to the history of a case, under his observation in 1854, of a man who had lost eighteen square inches of his skull, in whom the scalp was depressed, while asleep, where the bone was absent, and at the instant of waking rose to a higher level. Subsequently he "observed that in young infants the portion of scalp covering the anterior fontanelle was always depressed during sleep, and elevated during wakefulness." In 1860, with a view to ascertain the condition of the cerebral circulation during sleep, he experi-